



**Billing Code 4310-55-P**

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**Docket No. FWS-R4-ES-2012-0030**

**[4500030113]**

**Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition to List *Maytenus cymosa* as Endangered or Threatened**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of 90-day petition finding.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce a 90-day finding on a petition to list the *Maytenus cymosa* (Caribbean mayten), a tree, as endangered or threatened under the Endangered Species Act of 1973, as amended (Act), and to designate critical habitat. Based on our review, we find that the petition does not present substantial information indicating that listing *M. cymosa* may be warranted.

Therefore, we are not initiating a status review in response to this petition. However, we ask the public to submit to us any new information that becomes available concerning the status of, or threats to, *M. cymosa* or its habitat at any time.

**DATES:** The finding announced in this document was made on [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** This finding is available on the Internet at <http://www.regulations.gov> at Docket Number FWS-R4-ES-2012-0030. Supporting documentation we used in preparing this finding is available for public inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Caribbean Ecological Services Field Office (CESFO), P.O. Box 491, Boquerón, PR 00622. Please submit any new information, materials, comments, or questions concerning this finding to the above address.

**FOR FURTHER INFORMATION CONTACT:** Marelisa Rivera, Deputy Field Supervisor of the Caribbean Ecological Services Field Office (see **ADDRESSES**), by telephone at 787-851-7297, or by facsimile at 787-851-7440. If you use a telecommunications device for the deaf (TDD), please call the Federal Information Relay Service (FIRS) at 800-877-8339.

## **SUPPLEMENTARY INFORMATION:**

### **Background**

Section 4(b)(3)(A) of the Act (16 U.S.C. 1531 *et seq.*) requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. We are to base this finding on information provided in the petition, supporting information submitted with the petition, and information otherwise available in our files. To the maximum extent practicable, we are to make this finding within 90 days of our receipt of the petition, and publish our notice of the finding promptly in the **Federal Register**.

Our standard for substantial scientific or commercial information within the Code of Federal Regulations (CFR) with regard to a 90-day petition finding is “that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted” (50 CFR 424.14(b)). If we find that substantial scientific or commercial information was presented, we are required to promptly conduct a species status review, which we subsequently summarize in our 12-month finding.

### *Petition History*

On October 6, 2011, we received a petition, dated September 28, 2011, from

Mark N. Salvo of Wild Earth Guardians, requesting that *Maytenus cymosa* be listed as endangered or threatened, and that critical habitat be designated, under the Act. The petition clearly identified itself as such and included the requisite identification information for the petitioner, as required by 50 CFR 424.14(a). The Service acknowledged receipt of the petition in a letter dated December 20, 2011, which also stated that emergency listing was not warranted. This finding addresses the petition.

#### *Previous Federal Action(s)*

*Maytenus cymosa* was included as a category 2 candidate species in **Federal Register** notices dated December 30, 1982 (47 FR 58454), September 27, 1985 (50 FR 39526), January 6, 1989 (54 FR 554), November 21, 1991 (56 FR 58804), September 30, 1993 (58 FR 51144) and November 15, 1994 (59 FR 58982). Category 2 candidates were taxa for which information was available indicating that listing was possibly appropriate, but insufficient data were available regarding biological vulnerability and threats. In the February 28, 1996, Notice of Review (61 FR 7595), we discontinued the use of multiple candidate categories and removed category 2 species from the candidate list, which removed *M. cymosa* from the candidate species list.

#### *Species Information*

*Maytenus cymosa* is a medium-size tree of the Celastraceae family. It grows up to 8 meters (m) (26.7 feet (ft)) tall and the trunk diameter may reach up to 15 centimeters

(cm) (6 inches (in)) with a blackish and slightly fissured bark. The species possesses alternate leaves with oval to obovate (egg-shaped) leaf-blades that are 2.5–6 cm (1.0–2.4 in) long and 1.5–4 cm (0.6–1.6 in) broad. The leaves are rounded at the apex, obtuse to narrowed or rounded at the base with margins slightly recurved, 5-8 millimeters (mm) (0.2–0.32 in) long, few lateral nerves, paler beneath. Flowers grow on axillary cymes (clusters of flowers arising from the junction between leaves and stem) and are subglomerate (almost tightly clustered). Flowers are 2.5 mm (1.0 in) long, with suborbicular sepals 0.8 mm (0.32 in) long and 1–1.2 mm (0.04–0.048 in) broad. Petals are pale yellow and oval and 1.8–2 mm (0.072–0.08 in) long. The fruit is a blackish-elliptic capsule 1 cm (0.4 in) long, which produces 1 or more seeds with a fleshy aril (covering) (Liogier 1994, p. 27; Little *et al.* 1974, p. 466).

The species occurs on dry to moist coastal woodlands in Puerto Rico at elevations below 100 feet (i.e., Piñeros Island, Vieques and Fajardo), in the U.S. Virgin Islands (USVI; St. Croix and St. Thomas), and in the British Virgin Islands (Virgin Gorda) (Little *et al.* 1974, p. 466). In Puerto Rico, its distribution seems to be limited to the eastern corner of the island and the adjacent small islands and cays (Liogier 1994, p. 27; Little *et al.* 1974, p. 466).

Based on the petition and the information available in our files, the largest population of *Maytenus cymosa* is located within the Gorda Peak National Park on the island of Virgin Gorda in the British Virgin Islands and is composed of about 100 individuals (IUCN 2011, p. 1). The petition further states that a single tree was recorded

at Savannah Bay on Virgin Gorda. However, no data were provided in the petition regarding current population trends to support an assumption that the number of individuals has been declining or that the populations are facing problems that may lead to the species' extinction. The petition reports another 52 individuals in eastern Puerto Rico within 2 localities, but no data about the exact localities of these populations, or about population trends, were provided in the petition or are available in our files. Furthermore, no data are available regarding the number of individuals at St. Croix and St. Thomas.

We accept the characterization of *Maytenus cymosa* as a species because it is recognized as a valid species on the latest treatments and revisions of the flora of the Caribbean (Liogier and Martorel 2000, p. 109; Liogier 1994, p. 27; Little *et al.* 1974, p. 466).

### **Evaluation of Information for This Finding**

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations at 50 CFR 424 set forth the procedures for adding a species to, or removing a species from, the Federal Lists of Endangered and Threatened Wildlife and Plants. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act:

- (A) The present or threatened destruction, modification, or curtailment of its habitat or range;

- (B) Overutilization for commercial, recreational, scientific, or educational purposes;
- (C) Disease or predation;
- (D) The inadequacy of existing regulatory mechanisms; or
- (E) Other natural or manmade factors affecting its continued existence.

In considering what factors might constitute threats, we must look beyond the mere exposure of the species to the factor to determine whether the species responds to the factor in a way that causes actual impacts to the species. If there is exposure to a factor, but no response, or only a positive response, that factor is not a threat. If there is exposure and the species responds negatively, the factor may be a threat and we then attempt to determine how significant a threat it is. If the threat is significant, it may drive or contribute to the risk of extinction of the species such that the species may warrant listing as threatened or endangered as those terms are defined by the Act. This does not necessarily require empirical proof of a threat. The combination of exposure and some corroborating evidence of how the species is likely impacted could suffice. The mere identification of factors that could impact a species negatively may not be sufficient to compel a finding that listing may be warranted. The information shall contain evidence sufficient to suggest that these factors may be operative threats that act on the species to the point that the species may meet the definition of threatened or endangered under the Act.

In making this 90-day finding, we evaluated whether information regarding the threats to *Maytenus cymosa*, as presented in the petition and available in our files at the time the petition was received, is substantial, thereby indicating that the petitioned action may be warranted. Our evaluation of this information is presented below.

*A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range.*

Information Provided in the Petition

The petition claims that the recorded populations of *Maytenus cymosa* in Puerto Rico and the USVI may occur on lands with differing ownerships where they may be threatened by land use and habitat fragmentation. The petition also indicates that the largest population of *M. cymosa* (about 100 trees) occurs in a National Park on Virgin Gorda in the British Virgin Islands.

Evaluation of Information Provided in the Petition and Available in Service Files

The petition does not provide any information about specific threats (for example, road construction, hotel developments, or housing developments) to the populations of *Maytenus cymosa* or evidence indicating that specific land uses or habitat fragmentation are responsible for actual or even foreseeable decline in the number of individuals. Neither the information in the petition or available in our files provides any recent



population assessments, which may provide information regarding current abundance, distribution, and threats. As to the population in Gorda Peak National Park, which is the largest population, the British Virgin Islands National Parks Trust (BVINPT) conducts weekly trail maintenance, garbage removal, and removal of overhanging branches within the Park. Protection of rare and endangered plants (including this species) was a primary reason for designation of the park, according to the British Virgin Islands Protected Areas System Plan 2007–2017 (BVINPT 2008, p. 109). While the plan lists internal and external threats to the park (e.g., limited cattle grazing, invasive species, forest fires, small-scale agricultural activity, and plant collection (mainly orchids), neither the plan nor the petition identifies any of these threats as specifically affecting *M. cymosa* (BVINPT 2008, p. 109).

*Maytenus cymosa* also has been recorded on the island of Vieques, in eastern Puerto Rico (Monsegur 2007), where it was collected by Gary Breckon (former botanist of the University of Puerto Rico at Mayagüez). About 54 percent of the island of Vieques (about 17,673 acres (7,152 hectares)) is a National Wildlife Refuge (NWR) managed by the Service, which contains suitable habitat for the species (Vieques NWR CCP & EIS 2007, p. 2). The amount of suitable habitat for the species on the island is unknown, but it is known to occur outside of the Refuge, based on the previously mentioned collection. The area of Cerro El Buey, which harbors a habitat similar to the area where Breckon collected the species, is under protection as it was transferred to the Puerto Rico Conservation Trust (Trust) (Vieques NWR CCP & EIS 2007, p. 2, 19). Currently, the Trust manages about 800 acres (323.7 ha) for conservation, including the

area of Cerro El Buey. Furthermore, the Service manages about 3,100 acres on western Vieques including the area of Monte Pirata, also a remnant of possible habitat for the species. The majority of the refuge (eastern conservation unit) (approximately 14,669 acres (5936.3 ha)) remains closed to the public due to unexploded ordnance. Due to its use as a Live Impact area, some of the eastern conservation area will be managed as a wilderness area, with no public access permitted (Vieques NWR CCP & EIS 2007, p. 3). This has the effect of preventing researchers from determining the full extent of the range of the species on the island. Therefore, while we acknowledge that areas outside of the Refuge are not officially protected, the majority of the habitat on the island remains protected.

*Maytenus cymosa* was also recorded on Piñeros Island, part of the former Roosevelt Roads Naval Station in Puerto Rico. This island is currently under a munitions and explosives of concern (MEC) investigation to identify and remove unexploded artifacts. The MEC investigation accounts for the presence of *M. cymosa* and requires the presence of a qualified biologist able to identify the species during any removal activities (Department of the Navy, Naval Facilities Engineering Command, Atlantic Division, 2006, p. 5-1). The Removal Plan (associated with the MEC investigation) states that *M. cymosa* is common on Piñeros Island and impacts to the species will be avoided during unexploded artifacts removal activities. Work will occur largely on trails, and munitions are expected to be removed by hand. The Navy, Naval Facilities Engineering Command, Atlantic Division, plans to transfer Piñeros Island to the Commonwealth of Puerto Rico and has suggested an approach that will allow public

access to Piñeros Island while protecting the ecology of the island by disturbing only a small fraction of the vegetation (Department of the Navy, Naval Facilities Engineering Command, Atlantic Division, 2006, p. 1-8).

In summary, the petition claims *Maytenus cymosa* may be threatened by land use and habitat fragmentation, but does not provide any substantive data or information to support the assumption that these threats are acting on *M. cymosa* in such a way as to render the species vulnerable to extinction. In contrast, information in our files indicates that the species is protected in many areas where it is found. Therefore, we find that the information provided in the petition and available in our files does not present substantial scientific or commercial information indicating that the petitioned action may be warranted due to the present or threatened destruction, modification, or curtailment of its habitat or range.

*B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes.*

The petitioner does not identify this factor as a current threat to the species. Based on the information available in our files, there are no data to suggest that overutilization for commercial, recreational, scientific, or educational purposes has contributed to a decline of the *Maytenus cymosa*. We find that the information provided in the petition and available in our files does not present substantial scientific or commercial information indicating that the petitioned action may be warranted due to overutilization for commercial, recreational, scientific, or educational purposes.

*C. Disease or Predation.*

The petitioner does not identify this factor as a current threat to the species. Based on the information available in our files, there are no data that suggest that disease or predation has contributed to a decline of *Maytenus cymosa* or that either is a current threat to the species. We find that the information provided in the petition and available in Service files does not present substantial scientific or commercial information indicating that the petitioned action may be warranted due to disease or predation.

*D. The Inadequacy of Existing Regulatory Mechanisms.*

Information Provided in the Petition

The petition notes that the British Virgin Islands has an environmental charter that required development of a Protected Areas System Plan, and promulgated environmental ordinances for the conservation and management of National Parks. The petitioner states that, despite these policies and ordinances, habitat loss and degradation continues in the British Virgin Islands and *Maytenus cymosa* may not be adequately protected on Virgin Gorda outside of the Gorda Peak National Park.

Evaluation of Information Provided in the Petition and Available in Service Files

As discussed under Factor A, the petition does not provide any substantial information about specific threats resulting in habitat loss and degradation to *Maytenus cymosa* populations or evidence indicating that urban development and habitat fragmentation may be responsible for a decline in the number of *M. cymosa* individuals. The petition does not provide population data on the existing populations outside the National Park. Furthermore, the core of the known populations (about 100 individuals) lies within the Gorda Peak National Park. Individuals within the National Park are provided protection from some threats, such as urban development and habitat fragmentation.

The Territory of the USVI currently considers *Maytenus cymosa* to be endangered under the Virgin Islands Indigenous and Endangered Species Act (V.I. Code, Title 12, Chapter 2) and has amended an existing regulation (Bill No. 18–0403) to provide for protection of endangered and threatened wildlife and plants by prohibiting the take, injury, or possession of indigenous plants. While we have previously recognized in other listing rules that Rothenberger et al. (2008, p. 68) mentioned that the lack of management and enforcement capacity continues to be a significant challenge for the USVI, even given the relatively wide range of the species, we have no evidence to indicate that collection or habitat loss may be expected to threaten the species now or in the future; therefore, we have no specific information indicating that regulatory mechanisms may be inadequate to protect the species.

In Puerto Rico, the species is considered as a critical element by the Puerto Rico Department of Natural and Environmental Resources. Critical elements are described in the Comprehensive Wildlife Conservation Strategy as federally or locally listed species, species important to Puerto Rican heritage, and some endemic species (DNER, 2005, p.54). This classification does not provide regulatory protection to *M. cymosa*, but does require special consideration by Commonwealth agencies when evaluating development projects that may impact the species. As stated previously, we have no evidence of current or future threats to the species; therefore, we have no evidence that this regulatory mechanism may be inadequate to protect the species, at present.

In summary, the petition does not provide any substantial information documenting the inadequacy of existing regulatory mechanisms nor do we have any such information in our files. Therefore, we find that the information provided in the petition and currently available in our files does not present substantial scientific or commercial information indicating that the petitioned action may be warranted due to the inadequacy of existing regulatory mechanisms.

*E. Other Natural or Manmade Factors Affecting Its Continued Existence.*

#### Information Provided in the Petition

The petition indicates that the small number of remaining *Maytenus cymosa* trees may have a negative effect on the species' genetic diversity and may render it vulnerable

to stochastic events, as small populations are more likely to go extinct as a result of these events. The petition further states that the Service has frequently recognized small population size as a threat to the persistence of species.

The petition also indicates that the population of *Maytenus cymosa* in Gorda Peak National Park on Virgin Gorda may have been affected by fire in 1997, and that the species may be vulnerable to future fires in that location. The petition further claims that individual trees may have been affected by Hurricane Hugo, and the species may have been affected by subsequent hurricanes and weather events.

#### Evaluation of Information Provided in the Petition and Available in Service Files

The petition does not provide any information to support a claim that the populations have actually declined, resulting in a negative effect on the genetic diversity of the species that would render it vulnerable to extinction. We have no information in our files about the genetics of the species or any information about the reproductive biology or population dynamics of *M. cymosa* to suggest that low genetic diversity may be a threat to the species. While small population is identified in the petition as a threat to the species, there is no information either in the petition or in our files to indicate that small population size may be having a negative effect on the species. Moreover, the species occurs on several islands rendering it less likely to be affected by stochastic events, and as we have explained, we have no information indicating that low genetic diversity may be a threat.

The petition does not provide any information, nor do we have any in our files, indicating that *Maytenus cymosa* was directly affected, or that its habitat was degraded, by the 1997 fire. The petition did not present substantial information to support the assertion that fire may be a threat to the species.

The petition does not provide any information, nor do we have any information in our files, indicating that *Maytenus cymosa* was directly affected, or its habitat was degraded, by severe tropical storms. It has been stated that successional responses to hurricanes can influence the structure and composition of plant communities in the Caribbean islands (Van Bloem *et al.* 2005). Nonetheless, as a species endemic to the Caribbean, it is likely that *M. cymosa* may be well adapted to these tropical weather events. Severe tropical storms may affect very small populations that are threatened by a lack of natural recruitment or that lie within areas subject to soil erosion or landslides. However, based on the petition and the information available in our files, there is no evidence suggesting that *M. cymosa* may be currently threatened by hurricanes and other weather events.

We find that the information provided in the petition and currently available in Services files does not present substantial scientific or commercial information indicating that the petitioned action may be warranted due to other natural or manmade factors (genetic diversity, fires, or hurricanes).



## **Finding**

In summary, the petition does not present substantial information that listing *Maytenus cymosa* as an endangered or threatened species may be warranted. The core of the known population lies within a protected area (i.e., Gorda Peak National Park). The petition does not provide any substantial information or data indicating that the present or threatened destruction, modification, or curtailment of its habitat or range may be a current or future threat to the species. *M. cymosa* also occurs within Piñeros Island, an area managed for conservation, and within the island of Vieques, which has a substantial land area designated as a National Wildlife Refuge and managed by the Service, which supports habitat for the species. The known distribution of *M. cymosa* includes territories that currently have regulations and laws that protect the species and its habitat. Neither the information provided by the petitioner nor the information available in Service files indicates that the species may be currently affected by genetic problems, human-induced fires, or hurricanes. The petitioner did not provide any further information regarding the ecology or reproductive biology of *M. cymosa* (e.g., lack of pollinators and/or fruit dispersors, lack of natural recruitment, etc.) that would suggest synergistic forces may be acting on *M. cymosa*, making it vulnerable to extinction.

Therefore, on the basis of our analysis under section 4(b)(3)(A) of the Act, we conclude that the petition does not present substantial scientific or commercial information to indicate that listing *Maytenus cymosa* under the Act as endangered or threatened may be warranted at this time. Although we will not review the status of the

species at this time, we encourage interested parties to continue to gather data that will assist with the conservation of *M. cymosa*. If you wish to provide information regarding *M. cymosa*, you may submit your information or materials to the Deputy Field Supervisor, Caribbean Ecological Services Field Office (see **ADDRESSES**), at any time.

### **References Cited**

A complete list of references cited is available on the Internet at <http://www.regulations.gov> at Docket No. FWS-R4-ES-2012-0030 and upon request from the Caribbean Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

### **Author**

The primary authors of this notice are the staff members of the Caribbean Ecological Services Field Office (see **ADDRESSES**).

**Authority**

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: June 20, 2012

/s/ Daniel M. Ashe

Director, U.S. Fish and Wildlife Service

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